

STATE OF WISCONSIN INVESTMENT BOARD

The State of Wisconsin Investment Board (SWIB) manages and invests the assets of the Wisconsin Retirement System and other benefit plans. Although a separate agency from the Department of Employee Trust Funds, SWIB's functions are directly related because it invests contributions by both employers and employees in the WRS.

Over the long-term, investment earnings play a major role in the viability of the retirement system. The funding of the retirement system assumes that some of the costs of benefits will be paid from investment earnings. Without these earnings, employer and employee contributions would have to increase in order to maintain retirement benefit levels for the future.

The relationship between ETF and SWIB, in a nutshell, is as follows: ETF's Actuary determines how much of the funds will be needed to cover the annual pensions and benefits to be paid out. SWIB needs to create investment earnings to at least meet that need, when added to contributions already received or anticipated, so that contribution rates from employers and employees will not have to be increased. If SWIB exceeds the earnings assumption, the result may be post-retirement benefit increases (dividends) for retired persons, increased interest credited to the accounts of active employees and reduced employer and employee contributions. Other actuarial factors, such as life expectancy changes, may also affect these results.

SWIB pools all assets and manages them as either part of the Fixed Retirement Investment Trust or the Variable Retirement Investment Trust. As of December 31, 1999, the assets for the fixed trust were \$55.9 billion, up \$7.1 billion from the previous year. The assets in the variable trust were \$8.3 billion, up \$1.5 billion from the previous year.

Besides the assets of the retirement trusts, SWIB is responsible for management and investment of other smaller, special purpose accounts such as the State Life Insurance Fund, the Local Government Property Insurance Fund and the State Historical Society Trust Fund. The two retirement trust make up about 93% of the total assets managed by SWIB.

The Trustees of the Investment Board as of June 30, 1999, their affiliations and appointment process, were as follows:

1. Five public members appointed by the Governor, four of whom must, by statute, have 10 years of professional investment experience:

John Petersen, III, chair, President,
Inland Investment Co., Madison.

Joseph E. Gorman, Past President,
National Investment Services of America,
Milwaukee.

Jon D. Hammes, President, Hammes
Company, Brookfield

James R. Nelson, Investment Advisor,
Loomis, Sayles & Company, Milwaukee

William R. Sauey, Chairman/President,
Nordic Group of Companies, Ltd. Baraboo

2. Two Retirement System members, appointed by the Wisconsin Retirement Board (WRB) and the Teachers Retirement Board (TRB):

Eric O. Stanchfield, Secretary,
Department of Employee Trust Funds,
Madison, appointed by the WRB.

<p>SWIB issues its own annual report, and readers who want more information about the investment program may call (608) 266-2381 to receive a copy.</p>

George H. Hahner, retired teacher, Racine, appointed by the TRB.

3. Local Government Representative:

Norma Dehaven, City Administrator, City of Fitchburg

4. Secretary of the Wisconsin Department of Administration, ex-officio:

George Lighbourn (Acting Secretary), Madison.

The staff of the Investment Board is headed by Patricia Lipton, the Executive Director, who is appointed by the Board of Trustees. There are six investment divisions: Public Fixed Income, Private Placements, Real Estate, Domestic Equities, International Equities and Non-Traditional Investments.

Investment Guidelines

The general policies that apply to all funds invested by the State of Wisconsin Investment Board (SWIB) are embodied in Chapter 25 of the Wisconsin Statutes and the Wisconsin Administrative Code.

In summary, these rules and guidelines require SWIB to determine the purpose of each fund, establish parameters for each fund's investment management, and determine the appropriate risk and return standards. In determining these standards, SWIB uses criteria that are accepted by other large investors with similar responsibilities and objectives.

Investments made for each of the funds must be within the investment criteria established by SWIB for that fund. Investments must also qualify as prudent under SWIB's standard of fiduciary responsibility. Within the constraints of statutory authority for each fund, investments are diversified so that large exposure to unpredictable events is minimized.

The State of Wisconsin Investment Board attempts to invest in organizations that adhere to prevailing local and national laws and to generally accepted standards of conduct in their affairs. SWIB recognizes that local

customs and laws in many countries may vary from the basic human rights and freedoms prevailing in the United States. However, SWIB seeks investments in organizations that respect the basic human rights of their employe and clientele in any country, because such conduct is conducive to the long-term success of such organizations.

The State of Wisconsin Investment Board encourages investment proposals from Wisconsin-based companies, or proposals that will broaden the Wisconsin economy or provide opportunities for employment of Wisconsin citizens. These proposals must conform to SWIB's standard investment policies. Each Wisconsin investment is subject to the same extensive review and analysis as other investments. Under no circumstances are concessions made regarding risk and rate of return objectives, which must be the same as for other proposals.

The State of Wisconsin Investment Board will not approve any investment proposal that would provide a special advantage, gain, or rate of return to a subgroup of its beneficiaries at the expense of a part of the entire beneficiary group. Nor will SWIB approve for investment any individual or group. All SWIB investments must offer a competitive rate of return based on the perceived risk as compared with other similar investments.

The State of Wisconsin Investment Board also has guidelines that require disclosure of commissions and fees paid by SWIB in investment transactions. The guidelines provide for identification of brokers who bring real estate and private placement investments to SWIB, even though such brokers are not paid by SWIB. Parties involved in investment transactions with SWIB are required to certify that there are no conflicts of interest arising from direct or indirect economic interests in the transaction. Any involvement or financial interest in transactions by Trustees or SWIB staff is strictly prohibited.

Fixed Retirement Trust Fund

This trust is a pooled fund consisting of retirement contributions made by and on behalf of participants in the Wisconsin Retirement System. (Participants are state, school and local government employees.) All participant contributions are invested through this trust unless a participant has elected to contribute to the Variable Retirement Trust Fund. (Since 1980, new employees may no longer elect to join the Variable Retirement Trust Fund.)

At retirement, participants in the Fixed Trust Fund receive fixed monthly benefit

payments. This means that they receive benefit amounts that stay constant in nominal terms during the retirement years, unless favorable investment performance is experienced relative to the actuarial assumptions used in calculating benefits. The basic investment objective of this trust fund is to achieve a rate of return over the long-term which averages 3.2% per year in excess of wage-rate growth. This objective is predicated on market rate of return and actuarial assumptions.

Holdings in the Fixed Trust Fund at the end of the fiscal year were as follows:

After retirement, the benefit paid on the

Fixed Retirement Trust Fund Holdings – December 31, 1999

(In Millions \$)

Equities			
Domestic - Active Portfolios	\$ 8,927	15.97	%
Domestic – Quantitative Portfolios	1,042	1.86	
Domestic - Passive Index Fund	13,791	24.67	
International - Active Portfolios	8,079	14.45	
International - Passive Index Fund	626	1.12	
Leveraged Buyouts	1,148	2.05	
Venture Capital	186	0.33	
Real Estate Mortgages	352	0.63	
Emerging Markets	642	1.17	
Total Equities	\$ 34,793	62.25	
Fixed Income			
Public Bonds - Active Portfolios	\$ 6,591	11.79	
Public Bonds - Passive Index Fund	3,838	6.87	
International / Global	3,427	6.13	
Private Placements	3,172	5.67	
Emerging Markets	140	0.25	
Total Fixed Income	\$ 17,168	30.71	
Real Estate	1,907	3.41	
Non Traditional	1,304	2.33	
Cash & Cash Equivalents	729	1.30	
TOTAL	<u>\$ 55,901</u>	<u>100.00</u>	%

Variable Retirement Trust Fund

This trust fund, like the Fixed Retirement Trust Fund, is a pooled fund consisting of retirement contributions for participants within the Wisconsin Retirement System. Prior to 1980, new employees could choose to place half of their pension fund contributions in the Variable Trust Fund. The balance of the contributions are credited to the Fixed Trust Fund. Chapter 221, Laws of 1979 barred new participants from entering the Variable Trust Fund after April 1980.

portion of contributions in the Variable Trust Fund is adjusted each year based on the performance of the Variable Trust Fund as a whole. Participating employees may elect to switch their Variable Trust Fund assets to the Fixed Retirement Trust Fund.

The Variable Trust Fund is primarily invested in common stocks. The purpose of the variable annuity program is to permit participants to share in the expanding economy of the nation through the profits of business and industry. Participants who have elected this option, however, must be prepared

for the possibility that unfavorable stock market performance could result in losses.

The investment objective of the Variable Trust Fund is to obtain performance results which exceed those obtained by similar equity-oriented portfolios over a full market

cycle. Unlike the Fixed Trust Fund, there is no guarantee of a basic pension amount.

Holdings in the Variable Trust Fund at the end of the fiscal year were as follows:

Variable Retirement Trust Fund Holdings – December 31, 1999 (In Millions)			
Equities			
Domestic – Active Portfolios	\$ 2,228	26.7	%
Domestic – Quantitative Portfolios	\$ 261	3.1	%
Domestic – Passive Index Fund	\$ 3,420	41.0	%
International – Active Portfolios	2,011	24.1	
International – Passive Index Fund	62	0.7	
Emerging Markets	160	1.9	
Total Equities	\$ 8,143	97.7	
Cash & Cash Equivalents	194	2.3	
TOTAL	<u>\$ 8,337</u>	<u>100.0</u>	%

Investment Portfolios

To meet the objectives of the retirement trust funds, SWIB manages a broadly diversified mix of investments that includes equities, fixed income, real estate, non traditional investments and cash. Each investment group specializes in a particular area of investment and may manage a number of separate portfolios with different investment objectives.

Equities— Fixed and Variable Funds

Domestic Equities (Active). Actively managed domestic equity investments primarily consist of common stock held in U.S. companies. These investments are managed in five internal portfolios.

- Small cap portfolio: Companies with a market capitalization of up to \$1.5 billion.
- Mid cap portfolio: Companies with market capitalization of \$1 to \$10 billion.
- Target portfolio: Selected companies in the small to mid capitalization range.
- Large cap issue selection portfolio: Large companies with a capitalization greater than \$3 billion.
- Quantitative Portfolios: J.P. Morgan and Grantham, Mayo Van Oterloo each

manage large cap assets using quantitative investment strategies.

S&P 500 Index Fund. The Standard & Poor's Index of 500 large company stocks is represented in this portfolio. The investment objectives are to add diversity to equity portfolios, facilitate asset allocation and complement SWIB's predominantly active investment style.

Mid Cap Index Fund. This fund invests in mid-sized companies of approximately \$1 billion to \$5 billion in market capitalization.

Small Cap Index Fund. This portfolio represents companies in the Russell 2000 Index of US stocks.

International Equities. Investments in stocks traded on foreign are divided among an internally managed portfolio, externally managed portfolios and an index fund. SWIB limits investments to countries rated "free" or "partly free" by the Freedom House Index.

Private Equity

- **Leveraged Buy-Out.** This portfolio invests in partnerships that seek superior returns from a combination of closely-held ownership and high leverage. This portfolio is diversified by investment size and strategy, as well as geography.
- **Venture Capital.** Selected venture capital start-up funds, which in turn invest in various stages of a new company's development, are the focus of this portfolio. Investments are diversified across different stages of company development and geographic area.
- **Emerging Markets.** SWIB's emerging markets investment program focuses on developing countries. These investments are managed in two externally managed funds: the Capital International Emerging Markets Growth Fund and the Genesis Emerging Markets Fund.

Fixed Income

Public Bonds. Public Bonds are managed in three portfolios: (1) the core portfolio is invested primarily in U.S. government bonds and corporate bonds purchased in public markets. Bonds are broadly diversified by credit type, maturity and sector; (2) The market evaluation portfolio is weighted toward corporate securities and seeks temporary under-valuations through the use of swaps, sector and maturity shifts; and (3) The intermediate duration portfolio invests in U.S. Treasury and agency securities, primarily in the three- to seven-year maturity range.

International/Global Bonds. SWIB may invest in fixed income securities of sovereign states or territories rated “free” or “partly free” in the Freedom House Index. Securities must meet minimum credit quality requirements. Four outside advisors manage approximately two-thirds of SWIB's international/global bonds: Alliance Capital Management, Brinson Partners, Morgan Grenfell Investment Services and Nomura Capital Management.

Lehman Aggregate Index Fund. This index fund includes a broad representation of the public and corporate markets. The investment objectives are to add diversity to our bond portfolios, facilitate asset allocation, and complement SWIB's predominantly active investment style.

Private Placements. SWIB makes direct, long-term loans to companies located throughout the United States. In many cases, SWIB participates as a co-lender with other public or private investors. Occasionally, these investments include a component of company ownership. Loans are made at fixed rates of interest. Typically, a company must have a demonstrated record of good management, sales growth, profitability and cash flow, along with reasonable levels of existing debt and equity.

Emerging Markets. SWIB's fixed income emerging markets investment program focuses on developing countries. Investments are managed in the Morgan Grenfell Emerging Markets Fund and the Salomon Brothers Emerging Markets Fund.

Real Estate

SWIB invests in commercial real estate as a sole direct owner, or in joint ventures and partnerships. The investment objective is to add diversity, provide long-term stability and act as a hedge against inflation. The portfolio is diversified by region of the United States and by property type.

Non Traditional

This portfolio may invest across asset classes in domestic or international markets. Investments are in public and private equities, fixed income instruments, partnerships and structured investments. The objectives are to improve overall performance of the Fixed Trust Fund through enhanced returns and reduced volatility.

Cash

Temporary cash balances awaiting permanent investment are invested in short-term and intermediate-term investments. They include obligations of the U.S. government and its agencies, as well as high

quality commercial bank and corporate debt obligations. (The investment vehicle is the State Investment Fund.)

Investment Results

Retirement benefits, taxpayer and employee costs, and the extent to which the plan provides a funded guarantee of future benefits are affected by the investment results of Wisconsin's public retirement system. Lower investment income ultimately means that payments by taxpayers and employees are higher. Higher investment income means, in addition to reducing taxpayer and employee costs, that payments to retirees may be increased to help offset inflation. Wisconsin's system permits such increases if investment

results exceed the amount necessary to maintain level payments. In addition, the investment results directly affect the benefits paid to employees who terminate their employment prior to retirement, and the benefits paid to their surviving beneficiaries.

The Results— Income Credits

The charts shown below (see also page 111) are the Fixed and Variable Trust Fund income credits paid to participants' accounts over each of the past ten years. The credit, or income paid at the end of each year, is expressed as a percentage of the year's beginning balance in the participant's account.

Annual Income Credits – Pre-Retirement Accounts		
Year	Fixed	Variable
<u>Ended 12/31</u>	<u>Trust Fund</u>	<u>Trust Fund</u>
1990	8.6%	-11.0%
1991	12.1%	28.0%
1992	10.2%	11.0%
1993	11.0%	17.0%
1994	7.7%	0.0%
1995	11.3%	27.0%
1996	12.5%	20.0%
1997	12.8%	23.0%
1998	13.1%	18.0%
1999	13.5%	28.0%

Annual Income Credits Post Retirement Adjustments		
Year	Fixed	Variable
Ended 12/31*	Trust Fund	Trust Fund
1990	11.3%	16.0%
1991	3.6%	-14.0%
1992	6.3%	18.0%
1993	4.4%	5.0%
1994	4.9%	11.0%
1995	2.8%	-4.0%
1996	5.6%	19.0%
1997	6.6%	14.0%
1998	7.7%	18.0%
1999	7.2%	12.0%

* Figures reflect year in which benefit increase (decrease) was initially paid. Fixed dividends and variable adjustments represent the net result of investment experience after taking into consideration the assumed investment return.

The Fixed Trust Fund income credit equals (a) the Fixed Trust Fund's annual dividend and interest income plus (b) 20% of the accumulated capital gains and losses on the Fixed Trust Fund. Capital gains and losses are effectively averaged over a five-year period in order to stabilize the Fixed Trust Fund income credit and provide smoother overall returns to participant accounts.

The Variable Trust Fund income credit consists of income plus capital gains and losses of the Variable Trust Fund, with no averaging or stabilizing provision. Since the Variable Trust Fund is invested almost entirely in common stocks, the inherent volatility of the stock market results in widely varying annual returns. It is reasonable to expect that over long periods of time the Variable Trust Fund results will, on average, have larger income credits than the Fixed Trust Fund income credits. But the results can also be expected to be more volatile.

The Results— Total Rate of Return

While income credits reflect SWIB's performance in a meaningful way to beneficiaries, they differ from measures commonly used to evaluate investment management. Total rate of return (time-weighted) is widely accepted as a useful technique for comparing investment results. It combines current yield plus changes in current market value.

The income credit for the Fixed Trust Fund is similar to the yield (dividends and interest). This is because the income credit primarily reflects cash received by the Fixed Trust Fund. The Fixed Trust Fund income credit is comparatively stable and is less susceptible to fluctuations in payments to retirees.

The income credit for the Variable Trust Fund, on the other hand, is close to the total return of the Variable Trust Fund, fully reflecting changes in market value as well as yield. The deviations between Variable Trust Fund income credit and total rate of return reflect non-investment changes such as changes in reserves, turnover and the timing of payments.

Total rate of return is shown for both funds in the following table. SWIB began measuring results using the time-weighted rate

of return method June 30, 1977. Results for the last ten years are reported.

Time-Weighted Total Rate of Return					
Fiscal Year Ended 6/30	<u>Fixed Trust Fund</u>		Total Fund	<u>Variable Trust Fund</u>	
	Equities	Fixed Income		Equities Only	Total Fund
1990	5.4	9.5	7.1	5.5	5.2
1991	3.5	10.7	6.7	3.4	2.9
1992	13.6	15.1	13.2	13.1	13.0
1993	15.3	15.2	14.2	15.4	15.0
1994	7.0	-1.8	3.8	6.3	6.1
1995	19.4	14.0	16.7	20.2	19.6
1996	20.8	6.2	14.8	20.7	20.1
1997	26.1	9.9	18.9	26.2	25.0
1998	21.3	12.5	17.6	21.5	20.6
1999	14.8	2.7	9.8	15.6	15.1
10 Yr Avg.	14.5 %	9.3 %	12.2 %	14.6 %	14.0 %

Interpretation of Results

In order to know whether these results are successful or not, some comparisons are in order.

There are many incorrect ways of assessing investment results. It is not, for example, appropriate to compare the results of funds with very different objectives or constraints. Funds with different types and mixes of investments are also difficult to compare directly. To properly assess investment results, comparisons must reflect similar objectives, constraints and opportunities.

One must also be careful about the period of time used for measurement. Investment results measured over short periods of time are very unstable. The best results today may be the worst tomorrow. What matters is consistent, long-term results.

With these thoughts in mind, the comparisons presented below are believed to reflect reasonably comparable

conditions. No such comparisons are perfect, but by examining several comparisons a pattern emerges.

Performance vs. Objectives— Fixed Trust Fund

Perhaps the most important measure of results is performance compared with established investment objectives. SWIB's objective for the Fixed Trust Fund is to exceed a benchmark composed of market indices and investment manager returns weighted to reflect adopted asset allocation policies. Another objective is to exceed wage rate growth by 3.2% per year over long periods of time. This objective is consistent with retirement plan actuarial assumptions. National wage rate growth is selected rather than the plan-participant wage growth experience because national measures are believed to be more representative of long-term wage trends.

Fixed Trust Fund - Return vs. Objectives

	For Periods Ending 6/99		
	<u>1 Yr</u>	<u>5 Yrs</u>	<u>10 Yrs</u>
Fixed Fund Return	9.8%	15.5%	12.2%
Fixed Fund Benchmark	11.0%	15.7%	11.9%
National Wage Rate Growth	3.1%	3.5%	3.7%
Inflation (GDP Deflator)	0.9%	1.7%	2.4%
GDP (current \$)	4.5%	5.2%	5.1%

The results indicate that Fixed Trust Fund returns have exceeded the benchmark returns over the last 10 years. Returns have also been well in excess of wage-rate growth in these years. This is the thirteenth year that the ten-year results have exceeded the wage-rate growth objective.

**Performance vs. Objectives—
Variable Trust Fund**

For the Variable Trust Fund, SWIB's objective is to equal or exceed the S&P 500

Index (with income added). The S&P 500 Index is a broad market measure of U.S. intermediate and large company stocks. It is widely regarded as a good measure of average results for larger U.S. common stock funds.

Another objective of the Variable Fund is to equal or exceed a broad equity benchmark more closely resembling SWIB's mixture of U.S. and non-U.S. equity assets. This benchmark is composed of market indices and investment manager returns weighted to reflect adopted asset allocation policies within the equity sector.

Variable Trust Fund - Return vs. Average Market Results

	For Periods Ending 6/99		
	<u>1 Yr</u>	<u>5 Yrs</u>	<u>10 Yrs</u>
Variable fund Return	15.1 %	20.0 %	14.0 %
S&P 500 Index (with dividends)	22.7	27.9	18.8
Broad Equity Benchmark	13.8	20.7	15.1

Top Holdings As of December 31, 1999

Equity		
<u>Security Name</u>	<u>Industry</u>	<u>Market Value</u>
Microsoft Corp Com	Computer Software	\$918,849,172
General Electric Co Com	Conglomerate	781,963,252
Cisco Sys Inc	Computer Networks	582,819,670
Exxon Corp Com	Oil and Gas	503,041,404
Intel Corp Calif Com	Semiconductors	456,149,199
Walmart Stores Inc	Retail	446,918,287
Lucent Technologies, Inc.	Communications Equipment	355,551,365
Citigroup	Financial Services	287,918,494
American Intl Group	Insurance	283,342,328
Proctor & Gamble	Personal and Household Products	282,991,172
